



SDMS DocID 563841

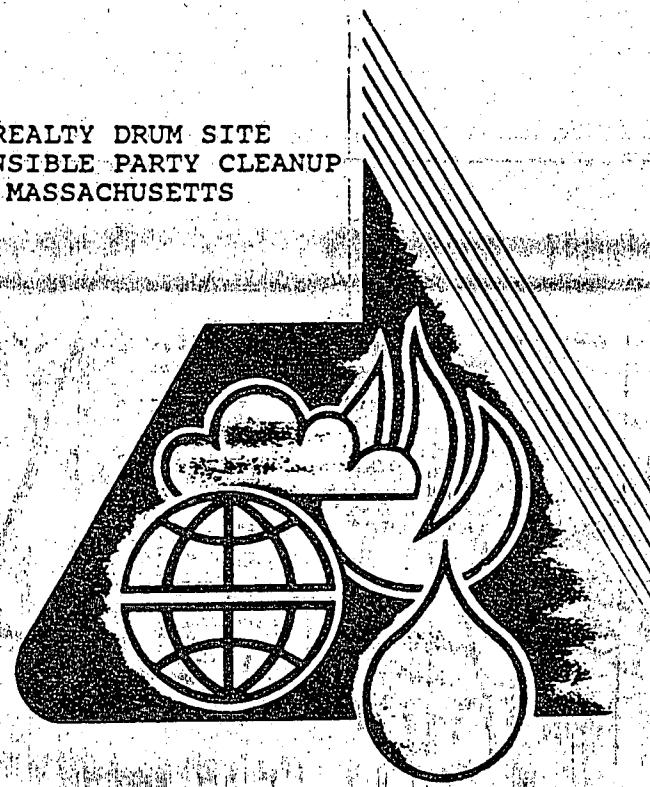
Contract No. 68-01-6665
Weston G/H
2.5.2



U.S. ENVIRONMENTAL PROTECTION AGENCY

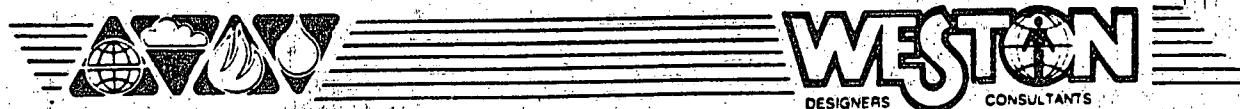
TECHNICAL
ASSISTANCE
TEAM

JUNIPER REALTY DRUM SITE
PRIVATE RESPONSIBLE PARTY CLEANUP
WOBURN, MASSACHUSETTS



Region I

ROY F. WESTON, INC.
Spill Prevention & Emergency Response Division
In Association with Jacobs Engineering Group Inc. Tetra Tech Inc.
and ICF Incorporated



JUNIPER REALTY DRUM SITE
PRIVATE RESPONSIBLE PARTY CLEANUP
WOBURN, MASSACHUSETTS

WESTEN-SPER

TABLE OF CONTENTS

- I. Cover Letter
- II. Technical Direction Document
- III. Purpose
- IV. Site Background
- V. Site Description
- VI. Scope of Work
- VII. Conclusions
- VIII. Appendices
 - A. Safety Plan
 - B. Administrative Order
 - C. Daily PRP Progress Report
 - D. Clean Harbors Work Plan
 - E. Site Sketch
 - F. Photographs

I. COVER LETTER

such protective barriers. Such a plan is needed to determine if contamination from the drums has spread off site or has reached groundwater. We have not seen the POIP and wish to remind you that it is required.

01-F 00825 (5162)



Suite 202, 111 South Bedford Street, Burlington, MA 01803 • (617) 229-6150

TECHNICAL ASSISTANCE TEAM FOR EMERGENCY RESPONSE REMOVAL AND PREVENTION
EPA CONTRACT 68-01-6669

May 29, 1986

Mr. Steven R. Novick
Deputy Project Officer
U.S. Environmental Protection Agency
60 Westview Street
Lexington, MA 02173

Dear Mr. Novick:

The accompanying report, Juniper Realty Drum Site - Private Responsible Party Cleanup - Woburn, Massachusetts, is submitted to signify that the requirements of Technical Direction Document No. 01-8602-07 and its extension, 01-8602-07A have been met. The project authorized under the TDD was to monitor the PRP cleanup of the Juniper Realty Site in Woburn. The majority of the work was performed under the original TDD but delays arose over receipt of sample analytical results and with selection of a disposal facility. Hence, an extension of the original TDD was required.

TAT Timothy Jones monitored the cleanup operation from February 12 through March 5; by the latter date the drums had been overpacked and sampled. There was no further activity until May when the drums and contaminated soil were transported to a disposal facility, Chemical Waste Management, in Emelle, Alabama.

The TAT has pointed out in the conclusion of the report that a Project Operation and Investigation Plan (POIP) was required in the Administrative Order. Such a plan is needed to determine if contamination from the drums has spread off site or has reached groundwater. We have not seen the POIP and wish to remind you that it is required.

...2/.

Roy F. Weston, Inc.

SPILL PREVENTION & EMERGENCY RESPONSE DIVISION

In Association with ICF Inc., Jacobs Engineering Group Inc., C.C. Johnson & Associates, Inc., and Tetra Tech, Inc.

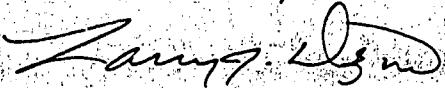
WESTON-SPER

MEMO TO STEVEN R. NOVICK
Page 2.

If you have any questions, please call me at (617) 229-6430.

Sincerely,

ROY F. WESTON, INC.



Larry J. Dziuk, Ph. D.
Technical Assistance Team
Leader

LJD/jsp

2.5.2
page 7

II. TECHNICAL DIRECTION DOCUMENT

1. COST CENTER 01	TECHNICAL DIRECTION DOCUMENT (TDD) OHM EMERGENCY RESPONSE AND SPILL PREVENTION PROGRAM ROY F. WESTON, INC.				2. NO 01860207A 2A. TYPE 2
3. PRIORITY: <input checked="" type="checkbox"/> HIGH (1) <input type="checkbox"/> MEDIUM (2) <input type="checkbox"/> LOW (3)	4. SOURCE OF FUNDS: <input checked="" type="checkbox"/> CERCLA (1) <input type="checkbox"/> 311 (2) <input type="checkbox"/> OTHER (3)	5. EPA SITE ID (IF APPLICABLE): N/A	6. COMPLETION DATE: 6/30/66	8. REFERENCE INFO: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> ATTACHED <input type="checkbox"/> PICK UP	
9. GENERAL TASK DESCRIPTION: Amendment - PRP monitoring in Woburn, MA.					
9A. SPECIAL PROJECT - ESTIMATED COST: _____					ESTIMATED HOURS: /20
10. SPECIFIC ELEMENTS: 1. Assist OSC in review of PRP plans. 2. Monitor PRP activities in compliance with approved plans. 3. Report PRP progress to CSC covering air monitoring effectiveness of removal, schedule compliance, adherence to safety guidelines, compliance with applicable regulations. 4. Compile daily reports into final report.					11. INTERIM DEADLINES As necessary Daily Daily 06/30/66
12. DESIRED REPORT FORM: FORMAL REPORT <input checked="" type="checkbox"/> LETTER REPORT <input type="checkbox"/> FORMAL BRIEFING <input type="checkbox"/> OTHER (SPECIFY): Final report of PRP activities.					
13. COMMENTS: OSC: B. A. Kaitin TAT: J. Jones, M. McDowell					
14. AUTHORIZING DPO:  (SIGNATURE)					15. DATE: 4/15/86
16. RECEIVED BY: <input checked="" type="checkbox"/> ACCEPTED <input type="checkbox"/> ACCEPTED WITH EXCEPTIONS <input type="checkbox"/> REJECTED (TATL SIGNATURE)					17. DATE: / /
18. DESCRIPTOR 01860207X123JUN1986TYMWDWOOY6MF117X					

Sheet 1 White - TATL Copy
 Sheet 2 Green - DPO Copy (Signed by TATL - Requires Original)
 Sheet 3 Canary - TATL Copy
 Sheet 4 Pink - Project Officer Copy
 Sheet 5 Blue - Contracting Officer Washington D.C.
 Sheet 6 Goldenseal - DPO Original (Unsigned by TATL)

14. AUTHORIZING DPO

15. DATE

5/16/86

1. COST CENTER: <u>01</u>	TECHNICAL DIRECTION DOCUMENT (TDD) GULF OHM EMERGENCY RESPONSE AND SPILL PREVENTION PROGRAM ROY F. WESTON, INC.				2. NO.: <u>0186c2c7</u>
3. PRIORITY: <input checked="" type="checkbox"/> HIGH (1) <input type="checkbox"/> MEDIUM (2) <input type="checkbox"/> LOW (3)	4. SOURCE OF FUNDS: <input checked="" type="checkbox"/> CERCLA (1) <input type="checkbox"/> 311 (2) <input type="checkbox"/> OTHER (3) _____	5. EPA SITE ID (IF APPLICABLE): <u>N/A</u>	6. COMPLETION DATE: <u>4/1/86</u>	8. REFERENCE INFO: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> ATTACHED <input type="checkbox"/> PICK UP	
9. GENERAL TASK DESCRIPTION: Monitor Private Responsible Party (PRP) Cleanup Activities at the Juniper Realty Site, Woburn, MA					7. OVERTIME APPROVED: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
9A. SPECIAL PROJECT - ESTIMATED COST:					ESTIMATED HOURS:
10. SPECIFIC ELEMENTS:					11. INTERIM DEADLINES:
1. Perform initial site reconnaissance utilizing direct reading instruments for delineation of contaminated zones. 2. Assist OSC in review of PRP work plan. 3. Monitor PRP activities in compliance with PRP work plan & personnel safety plan. 4. Report PRP progress to OSC covering air monitoring, effectiveness of cleanup, schedule compliance, adherence to safety guidelines, compliance with applicable regulations. Compile Daily Reports to final Rpt					<u>4/1/86</u>
					<u>2/12/86</u>
					<u>Daily</u>
					<u>Daily</u>
					<u>4/1/86</u>
12. DESIRED REPORT FORM: <input checked="" type="checkbox"/> FORMAL REPORT <input type="checkbox"/> LETTER REPORT <input type="checkbox"/> FORMAL BRIEFING					<input type="checkbox"/>
OTHER (SPECIFY): Final Report of PRP Activities					
13. COMMENTS: TAT ASSIGNED: Jones					
14. AUTHORIZING DPO: <u>Steven R. Marin</u> (SIGNATURE)					15. DATE: <u>2/12/86</u>
16. RECEIVED BY: <input checked="" type="checkbox"/> ACCEPTED <input type="checkbox"/> ACCEPTED WITH EXCEPTIONS <input type="checkbox"/> REJECTED <u>Mark O'Hall</u> (TATL SIGNATURE)					17. DATE: <u>2/20/86</u>
18. DESCRIPTOR: <u>0186c2c7X103MONITOR JUN RLTY WOBURN MA IX</u>					

III. Purpose

This report describes the private responsible party (PRP) cleanup that was conducted as a result of the CERCLA Section 106(a) Administrative Order issued to the Olympia Nominee Trust on February 6, 1986. The Region I Technical Assistance Team (TAT) monitored the PRP cleanup and reported its progress to the U.S. Environmental Protection Agency (EPA) On Scene Coordinator (OSC).

IV. Site Background

The Juniper Development Company site is a drum site located at 60 Olympia Avenue in Woburn, Massachusetts. The origin of the drums is unknown but it appears the drums were dumped at the site over a decade ago. USEPA representatives discovered approximately 12 drums, in various stages of deterioration, on or about April, 1985. Some of the drums contained liquids and some contained semi-solid material. A site assessment was performed in September, 1985, by the USEPA Environmental Services Division and at that time drum contents and the surrounding soil was sampled. The results of the sample analysis clearly indicated that hazardous materials were present in both the drums and the soil. The materials found included the following; 1,1-dichloroethane, 1,1,1-trichloroethane, trichloroethylene, tetrachloroethylene, toluenes, xylenes, chlordane and PCB caroclor-1260.

The EPA issued an Administrative Order, after determining the potentially responsible parties involved, in order to abate the imminent and substantial endangerment that exists.

V. Site Description

The Juniper Development Company property is located adjacent to the United Truck Leasing facility on Olympia Avenue in Woburn, MA. The site is wetland of approximately 21 acres which is located above an aquifer that was previously used as a water supply for Woburn. The site is bounded by Olympia Avenue, the Abenjona River, the B&M commuter rail tracks and the G&H Well site. The drum pile is located in the southwest corner of the property between the B&M tracks and the wetlands along the river. There was about 20 drums, in various stages of deterioration, cemented together by the solidified contents. The drum pile was not accessible when the removal order was issued and access was accomplished by constructing a temporary bridge across the Aberjona River.

VI. Scope of Work

The monitoring of PRP cleanup activities was performed by TAT members to keep Robert Ankstitus, USEPA OSC, informed of the daily progress of the removal. Clean Harbors, Inc. was hired by the Juniper Development Company to remove, secure and dispose of the drum pile and any of the drum contents on the ground surface.

The following items were to be monitored during the PRP cleanup/removal.

- air monitoring
- effectiveness of removal
- schedule compliance
- adherence to safety guidelines
- compliance with regulations

This information was compiled each day site work was performed and it is summarized in Appendix C, Daily PRP Progress Reports.

VII. Conclusions

The private responsible party (PRP) cleanup of the Olympia Avenue site in Woburn, MA has removed the threat of exposure of the public from the actual drums and their contents. Further investigation is needed to determine if the contamination has migrated from the site and if there still exists a threat of exposure.

The contractor hired by the PRP, Clean Harbors, Inc., was delayed in starting the removal action because of the site location and the lack of proper access. A multi-million dollar insurance policy would have been required if the access road was within the B&M Railroad right of way. The PRP representative, Louis Massery, determined this would be too expensive. He decided that access was possible if a temporary bridge across the Aberjona River and an access road were built. This work was completed on Monday February 24, 1986, eighteen days after the Administrative Order was issued.

Removal work began the following day by the PRP contractor. All work performed within the exclusion zone was done in Level C protection, but at certain times workers entered the exclusion zone without proper respiratory or skin contact protection. Air monitoring was performed with the HNU Photoionizer and Drager detector tubes. A schedule for daily air monitoring should have been followed and additional types of detector tubes should have been used. All of the drums were overpacked in 80 gallon salvage drums on Tuesday, February 25, 1986. A total of 19 overpacks were staged in the United Leasing parking lot. Three empty rusted drums and 19 55 gallon drums of soil were removed from the site by Wednesday, February 26, 1986. The drums were staged in the parking lot when the removal was completed. An inspection of the site after the drum removal was completed revealed that one single drum remained on the Juniper Development Property. The contents of the drum were not determined, but a complete removal operations would not have left the drum on site.

Each overpack drum was sampled by Clean Harbors, Inc. on Wednesday, March 5, 1986. A composite sample was also obtained from the drums filled with soil. These samples were analyzed at the Clean Harbors laboratory in Braintree, MA prior to disposal. The drums remained in the parking lot until May, 1986, when the disposal codes were obtained and they were transported to the Chem-Waste Management facility in Emelle, Alabama.

The Administrative Order required that a Project Operation and Investigation Plan (POIP) be developed within 15 days to study the effects on the surrounding soil and groundwater. The water supply wells located on the adjacent property have been closed because of contamination, and law suits have resulted. The POIP is needed to determine if the drum contents have spread off of the site and what remedial work is needed at the site.

VIII. APPENDICES

APPENDIX A

**WESTON SUPER DIVISION
HAZARDOUS WASTE SITE INVESTIGATION AND EMERGENCY RESPONSE
SHEETY PLAN**

Assignor: ROBERT ANGUS JONES - EPA O&C REGION 01
TDD No. 0186-2227
Date of Inspection: 02/12/89 Time: 1400 FCS No. 5103
Original Safety Plan: Yes No Modification No. COPY # 2

Site Name: JUNIPER DEVELOPMENT CO. SITE

Site Address: Street No. 60 OLYMPIA AVENUE
City SUBURBAN
County MIDDLESEX
State MASSACHUSETTS Zip Code 01901

Site Contact: LOUIS MASSERI (ATTORNEY) Phone (617) 542-3702

Unprotected Site: ~~REVIEWED FOR HAZARDOUS WASTE RELEASE~~
From: ~~WOBURN EAST ON WASHINGTON STREET TO OLYMPIA~~
~~AVENUE, RIGHT ONTO OLYMPIA ALLEY TO UNITED TRINITY~~
~~CHURCH - 1/2 MILE ON THE LEFT - SITE IN REAR OF PARKING~~
Map Attached: Yes No

If Remote Location: Latitude _____ Longitude _____

SITE HISTORY: ILLEGAL DRUM DUMPING OVER TEN (10) YEARS AGO. EPA ADMINISTRATIVE ORDER FOR CLEAN-UP BY PRINCIPAL RESPONSIBLE PARTY (PRP)

INCIDENT DESCRIPTION (check one from A, B, and C)

TYPE: A) Spill Air Release Fire HW Site Other

B) Assessment Sampling Emergency Response

Clear-up/Removal Other (specify) ~~MONITOR PEL CLEAN-UP~~

C) Urban/Residential Commercial Industrial

Rural Remote

PHYSICAL DESCRIPTION

Size of Site: 10m x 10m Terrain: WETLAND Weather: CLEAR, BLOWING WIND

Containers Involved In the Release or Incident

Drums No. ~20 Tanks No. _____

Truck License No. _____ Tanker Box

Railroad Car Tank No. _____ Box No. _____

Spill Source Approx. Vol. _____

Other ~~ATMOSPHERIC POLLUTION FROM MISC. BUILDING~~

MATERIALS INVOLVED: MAJOR CONTAMINANTS

Name TLV IDLH Overexposure Symptoms

CHLORDANE 0.5 mg/m³ 500 mg/m³ - CHOPPED VEGETATION, CROP DAMAGE

PCB 0.5 mg/m³ 5 mg/m³ - BAKING, CONCRETE REACT

VOLATILE ORGANICS - (SEE ATTACHED EPA SHEET ORDER 2)

SPECIAL HAZARDS: DECOMPOSITION PRODUCTS, PCP, TXYL GASES

(PROBABLY HCl) CHLORDANE WILL ATTACK SOME FORMS OF PLASTIC

ANTICIPATED LEVEL OF PROTECTION (circle one): A B C D

WHY: EXtREMELY COLD WEATHER AND SNOW COVER
DIMINISHES EXPOSURE HAZARD, THAT MEMBERS
MONITORED CONTAMINATION AND DID NOT ENTER EXCLUSIVE ZONE

FIRST AID INSTRUCTIONS FOR KNOWN CONTAMINANTS: REMOVE FROM
SUSPENSION ZONE IF IT IS PREFERRED AREA WITH THE
HAD WATER, MAINTAIN BREATHING, TRANSPORT TO
HOSPITAL

PERSONNEL EXPOSURE HAZARDS: (H=High, M=moderate, L=low, U=unknown)

Inhalation M Skin Contact M Ingestion M Radioactive

Biological U Fire U Explosion U Unknown

PERSONNEL PHYSICAL SAFETY HAZARDS:

Heat U Cold ✓ Noise U Underground Utilities

Overhead Utilities Heavy Equipment ✓ Slip, Trip, Fall

Sharp Objects Pressurized Airlines Cylinders

Ladders Scaffolds Unguarded Openings-Wall, Floor

Liquids in Open Containers, Ponds, Lagoons

ACTIONS TAKEN ON SITE:

Was Entry Made: YES NO

Equipment Used: (circle) LEVEL A B C D Why: LEVEL C
WATER WAS IN GROUND FLOOR

SCBA APR Model Cart./Car. Type GMC-H

Tyvek Poly Tyvek Saran Tyvek Acid Suit

Rain Gear Cotton Coveralls COLD WEATHER GEAR

Gloves: Inner Butyl Nitrile Viton Other

Foot Gear: Safety Boots Outer Boots Booties Other

Description of Decontamination Used:

AIR MONITORING Performed by: MARK McDUFFIE

Instrument Readings: Radiation Meter CGI

OVA HNU Detector Tube

Other

Wind: Speed Direction Temp. Rel. Hum. B.P.

Summarize Air Monitoring Data OVA WOULD NOT SUSTAIN A

FAIR DUE TO COLD WEATHER - ENTR'D FROM

UPHILL AND KEEP OZONE FROM OZONE

Cleanup Contractor used larger detector tubes regularly

SAMPLING Performed by: N/A

Sampling Plan (Y or N) If yes attach copy to safety plan

No. of Samples: Solid Liquid Gas Other

Laboratory: _____

Has Lab Been Notified of Potential Hazard Level? Yes No

Analyses: _____

Sampling Comments: _____

DOCUMENTATIONPerformed by: MARY MCQUEE / TIM JONESType: Photo Log Book Recorder _____ Video _____PUBLIC IMPACTDistance to Nearest: Residence 1 mi School 1 mi Hospital 2 miPublic Building 1 mi Other B1M RR TRACKS - 50 ftEvacuation: Yes No Number _____ By whom: _____ENVIRONMENTAL IMPACT:Nearest Waterway: ABERJONA RIVER Distance: 50 m

Condition Observed Potential Name _____

Surface Water Contamination _____

Ground Water Contamination _____

Drinking Water Contamination _____

Air Contamination _____

Soil Contamination _____

Stressed Vegetation _____

Dead Fish, Other Animals _____

PERSONNEL INVOLVED: (NAME, AGENCY, PHONE, ON OR OFF SITE)SITE MANAGER: BOB ANKSTITUS (EPA OSC)SITE SAFETY COORDINATOR: MARY MCQUEE / TIM JONESHave Read & Understood The
Site Safety Plan (check)

EPA

BOB ANKSTITUS

TAT

MARY MCQUEE
TIM JONES

STATE

OTHER

LEAN MARCUS PERSONNEL / TO PRESENT CLEANTH

EMERGENCY INFORMATION**EMERGENCY PHONE NUMBERS:**

	Location	Phone	Notified (Y/N)
Fire	WORCESTER	922-3131	N
Police	WORCESTER	911	N
Ambulance	WORCESTER F.D.	933-3131	N
Hospital	CHAUTAUQUA HOSPITAL	933-6700	N

Nearest Phone**DIRECTIONS TO HOSPITAL:**
(ATTACH MAP)

(RIGHTS)

OLYMPIA AVE TO WASHINGTON ST. RIGHT ONTO
SALEM ST. LEFT ON PARK ST. TURN CENTER
LEFT UP WARREN AVE. CHAUTAUQUA HOSPITAL
IS ON THE RIGHT

ADDITIONAL EMERGENCY PHONE CONTACTS:

CHEMREC	(800) 424-9300
TSCA HOTLINE	(800) 424-9065, (202) 554-1404
CDC	(404) 452-4100 (day), (404) 329-2888 (night)
BUREAU OF ALCOHOL, TOBACCO & FIREARMS	(800) 424-9555, (202) 566-7777
NATIONAL RESPONSE CENTER	(800) 424-8802
WESTON MEDICAL EMERGENCY SERVICE	(513) 421-3063 (24 hour)
WESTON 24 HOUR HOTLINE	(215) 524-1925, 1986
PESTICIDE INFORMATION SERVICE	(800) 845-7633
EPA ERT EMERGENCY	(201) 321-6660
RCRA HOTLINE	(800) 424-9346
BUR. OF EXPLOSIVES, A.A. RAILWAYS	(202) 835-9500

Prepared by: Timothy C. Jones Date: 4/23/86

Reviewed by: Mark D. Miller Date: 4/23/86

Approved by: Mark D. Miller Date: 4/23/86

SFER HSD Review by: _____ Date: _____
 Followup Required: Yes _____ No _____
 Followup Performed: Date: _____ With: _____
 Comments: _____

COMMERCIAL • INDUSTRIAL 273-10001
"1-Bc" "gs.
Sales or Lease

MONTON
MINGTON
CHESTER

6

HFIELD
raiser

MLS.

4

D

A-6

C

B

E

E

F

G

BURLINGTON

2

JUNIPER DEVELOPMENT SITE

WOBURN

CHOATE
HOSPITAL

DIRECTION TO
NEAREST HOSPITAL

2

3

4

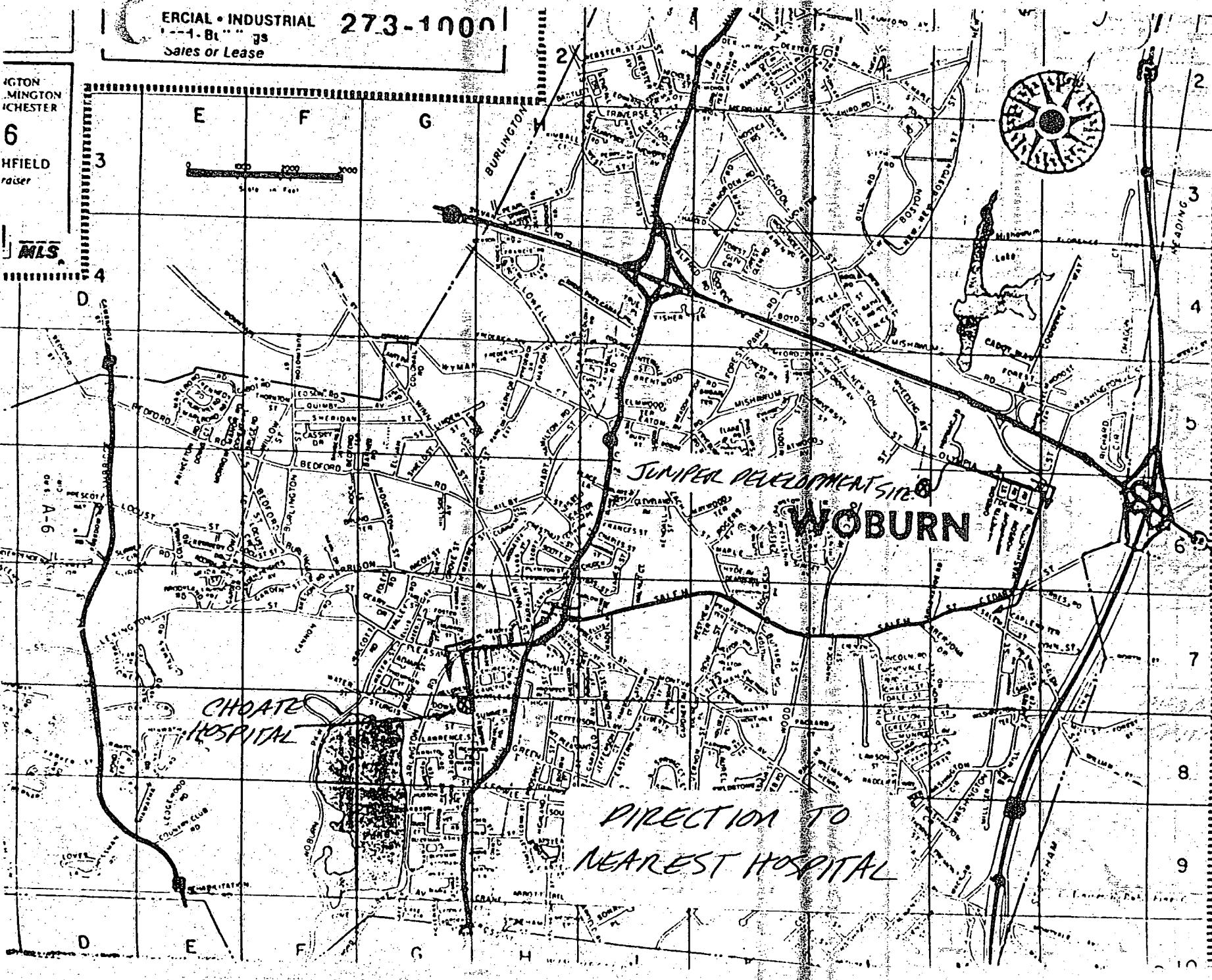
5

7

8

9

10



Any requests for further technical information should be addressed to:

U.S. Environmental Protection Agency

Massachusetts

MASS Superfund Section

JFK Federal Building

Boston, MA 02203

APPENDIX B

February 6, 1986

George Whitten, Trustee
Charles Whitten, Trustee
Amy Whitten, Trustee
Olympia Nominee Trust
39 Holton Street
Winchester, MA 01890

Re: CERCLA § 106 Administrative Order Issued to Olympia Nominee Trust, Docket No. I-86-1013

Dear Sir or Madam:

Enclosed please find the Environmental Protection Agency Administrative Order addressing the abatement of contamination related to drums found on property owned by the Olympia Nominee Trust located at 60 Olympia Avenue in Woburn, Massachusetts. This document is being issued under Section 106 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), 42 U.S.C. § 9606.

This Order is based on investigations and sampling conducted by the EPA. On the basis of these investigations, the EPA has determined that the circumstances on the Site may present an imminent and substantial endangerment within the meaning of Section 106 of CERCLA due to the release or threatened release of hazardous substances at the 60 Olympia Avenue property. The EPA now seeks implementation of measures to mitigate the endangerment to the public health, welfare or the environment.

Any requests for further technical information should be addressed to:

U.S. Environmental Protection Agency

Ira Leighton

HWM-1903

MASS Superfund Section

JFK Federal Building

Boston, MA 02203,

(617) 223-5709

Shallow Land Disposal
Department of Energy
Linda Ujifusa, Esquire

Sincerely,

Merrill S. Hoffman, Director
Waste Management Division

cc: Linda Ujifusa, Esquire
Margaret Hanley, Engineering Geologist
Louis Messery, Esquire

Administrator of EPA Region I by EPA Delegation No. 14-14-B, April 16, 1984. EPA has notified the State of Massachusetts of the issuance of this Order pursuant to the requirements of Section 106(e) of CERCLA.

IN THE MATTER OF:

50 Olympia Avenue,
Woburn, MA

George D. Whitten,
Charles D. Whitten, and
Amy Whitten, as Trustees of the
Olympia Nominees Trust,
39 Holton Street
Winchester, MA 01890,

RESPONDENTS:

Proceeding Under Section 106(a)
of the Comprehensive Environmental Response, Compensation,
and Liability Act of 1980,
42 U.S.C. § 9606(a)

ADMINISTRATIVE ORDER

U.S. EPA Docket No.
I-86-1018

JURISDICTION

1. This Order is issued pursuant to the authority vested in the President of the United States by Section 106(e) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 U.S.C. § 9606(a), and delegated to the Administrator of the United States Environmental Protection Agency (EPA) on August 14, 1981, by Executive Order 12316, 46 Fed. Reg. 42237, and further delegated to the Regional Administrator of EPA Region I by EPA Delegation No. 14-14-B, April 16, 1984. EPA has notified the State of Massachusetts of the issuance of this Order pursuant to the requirements of Section 106(e) of CERCLA.

parcels of land approximately 21.4 acres in size, located at 60 Olympia Avenue in Woburn, Massachusetts (hereinafter "the Site").

2. The objective of this Order is to take appropriate action to abate an imminent and substantial endangerment that may exist due to the actual or threatened release of hazardous substances from drums located on Respondents' property.

PARTIES BOUND

3. This Order shall apply to and be binding upon the Respondents, their agents, successors, and assigns, and upon all persons, contractors, and consultants acting under or for the Respondents. No change in ownership relating to the Site shall in any way alter the Respondents' responsibility under this Order.

FINDINGS OF FACT

4. George D. Whitten, Charles D. Whitten, and Amy Whitten (collectively, "Respondents") are trustees of the Olympia Nominee Trust, 39 Holton Street, Winchester, Massachusetts 01890.

5. Respondents presently own property comprised of three parcels of land approximately 21.4 acres in size, located at 60 Olympia Avenue in Woburn, Massachusetts (hereinafter, "the Site").

6. On or about April, 1985, an EPA representative discovered, on the southwesterly portion of the Site,

Drums

1,1,1-Trichloroethane 3 ppm
Tetrachloroethylene 74 ppm
Xylenes 6.1 ppm

approximately 12 exposed drums in various stages of corrosion. Some of the drums contained liquid and semi-solid material.

7. The EPA representative contacted EPA Environmental Services Division personnel who then performed an inspection of the drums and soil surrounding the drums on the site in September, 1985. At the time of this inspection, samples from several of the drums were taken, and samples of the surface soil surrounding the drums were obtained. An analysis of the samples taken at the time of the inspection disclosed the presence of the following substances in the concentrations set forth:

Soil Contamination

1,1-Dichloroethane	11 parts per million (ppm)
1,1,1-Trichloroethane	49 ppm
Trichloroethylene	390 ppm
Tetrachloroethylene	32 ppm
Toluenes	4.1 ppm
Xylenes	6.9 ppm
Chlordane	51,000 ppm
PCB AROCLOR-1260	31,000 ppm

Drums

1,1,1-Trichloroethane	3 ppm
Tetrachloroethylene	74 ppm
Xylenes	6.1 ppm

xylene and toluene both affect the central nervous system and may result in dizziness, nausea, and lack of coordination. Xylene and toluene can cause irritation of the upper respiratory tract, throat, eyes and skin.

e. The chemicals found in the soil and drums at the site have the following hazardous properties:

a. Trichloroethylene and tetrachloroethylene have both been demonstrated to cause cancer in laboratory animals. Chronic exposure to either chemical can damage the central nervous system, liver and kidneys. Both chemicals readily penetrate the skin and lungs.

b. Both 1,1-dichloroethane and 1,1,1-trichloroethane can cause irritation to the eye and mucous membrane and act as a narcotic. 1,1-dichloroethane may cause kidney damage. 1,1,1-trichloroethane can cause depression of the central nervous system and acute pulmonary congestion when inhaled.

c. Trichloroethylene, tetrachloroethylene, 1,1-dichloroethane and 1,1,1-trichloroethane do not tend to cling to soil significantly. These compounds will volatilize into the air or migrate from the soil into the ground water.

d. Xylene and toluene both affect the central nervous system and may result in dizziness, nausea, and lack of coordination. Xylene and toluene can cause irritation of the upper respiratory tract, throat, eyes and skin.

9. Access by the public to the exposed drums and their contents and contaminated soil at the Site is not restricted. Local residents on bicycles, motorcycles, and on foot have been seen in the area. These residents, children and other persons may wander onto the Site and become exposed to the contaminants in the soil or the

water following rainfall. Toluene is volatile and can be rapidly fatal for very early embryos.

Toluene and xylene tend to volatilize or migrate from the soil into the groundwater.

e. Chlordane is a pesticide which is toxic to the central nervous system and can cause instability, labored respiration, convulsions and death. It has been demonstrated to cause cancer in laboratory animals. Chlordane is very stable and persistent in the environment and can bioaccumulate.

f. Polychlorinated biphenyls (PCBs) are a group of chemicals that have been demonstrated to cause cancer in animals and are suspect human carcinogens. PCB's can cause liver damage, skin pigmentation, chilosis and may decrease fertility.

PCBs can bioaccumulate and have been found in mothers' milk. It is very persistent and stable in the environment.

9. Access by the public to the exposed drums and their contents and contaminated soil at the Site is not restricted. Local residents on bicycles, motorcycles, and on foot have been seen in the area. These residents, children and other persons may wander onto the Site and become exposed to the contaminants in the soil or the

past, present, and potential migration of such hazardous substances at the Site, presence, and potential migration of such hazardous substances at the Site, and potential migration of such hazardous substances at the Site through ingestion, skin contact, and inhalation. In addition, similar exposures can occur to wildlife and domestic animals traveling on or through the Site.

10. The Site is situated over part of an aquifer that previously supplied water to the Town of Woburn and that remains an important natural resource in the area. This aquifer may have been or may become contaminated by migration of hazardous substances from the drum area.

CONCLUSIONS OF LAW

11. The Site is a "facility" as defined in Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

12. The Respondents are "persons" as defined in Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

13. Substances found in the drums and soil at the Site, as set forth above in paragraph 5, are "hazardous substances" as defined in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

14. The past, present, and potential migration of such hazardous substances at the Site constitute an actual or threatened "release" as defined in Section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

-7-

15. The Respondents are "owners" of the facility pursuant to Section 101(20)(A) of CERCLA, 42 U.S.C. § 9601(20)(A).

16. The Respondents, as present "owners" of the Site, are responsible parties pursuant to Section 107(a) of CERCLA, 42 U.S.C. § 9607(a).

DETERMINATIONS

Based on the Findings of Fact and Conclusions of Law above, EPA has determined:

17. The actual or threatened release of hazardous substances from the Site may present an imminent and substantial endangerment to the public health or welfare or the environment within the meaning of Section 106 of CERCLA, 42 U.S.C. § 9606.

18. The actions required by this Order are necessary to protect the public health and welfare and the environment. Such actions are consistent with the National Contingency Plan, 40 C.F.R. Part 300.

ORDER

19. To abate the imminent and substantial endangerment which may be presented by circumstances at the Site and to protect public health and welfare and the environment, it is hereby ordered that the Respondents undertake the following activities within the specified time periods as set forth below:

soil and groundwater sampling, including

specification of the locations and frequency

of sampling; said samples shall be analyzed for

20. Within twenty-four (24) hours of the effective date of this Order, Respondents shall: (1) retain the services of a qualified and experienced contractor to abate the imminent and substantial endangerment posed by the contamination in and around the drums on the Site, and (2) provide EPA with said contractor's name, address, telephone number, and qualifications.

21. Within three (3) days of the effective date of

this Order, Respondents' contractor, referred to in

paragraph 18 above, shall stabilize and secure the drums on the Site to insure that no further releases from the drums occur. Activities pursuant to this paragraph shall not be undertaken without the approval of the EPA On-Scene Coordinator.

22. Within fifteen (15) days of the effective date of this Order, Respondents shall submit to EPA a Project

Operation and Investigation Plan (POIP). At a minimum this plan shall have provisions and a schedule for respondents to perform the following activities:

- a. Soil and groundwater sampling, including specification of the locations and frequency of sampling; said samples shall be analyzed for all the contaminants on the EPA Hazardous Substance List enclosed as Appendix A of this Order.

- d. Health and safety procedures that will be used by workers during investigative and removal work, including specifications for protective clothing and appropriate levels of respiratory protection.
- e. Air quality monitoring before and during any sampling and excavation that may occur.
- f. Quality assurance/quality control (QA/QC) and chain of custody procedures consistent with EPA Guidance Document OAMS-005/30. Laboratory procedures used during this work shall be included as a portion of the contractor's QA/QC procedures. Laboratories performing chemical analyses shall at a minimum meet the following requirements for the analyses being performed:

- (1) approval by the relevant State Laboratory Certification Program;
 - (2) participation in the National Proficiency Sample Program conducted by EPA;
 - (3) familiarity with the requirements of 48 C.F.R. Part 1546 (contractor requirements for quality assurance); and
 - (4) EPA approval of a QA/QC plan for relevant analyses as part of the contractor's QA/QC procedures.
- d. Health and safety procedures that will be used by workers during investigative and removal work, including specifications for protective clothing and appropriate levels of respiratory protection. Health and safety procedures shall be in compliance with all applicable state and federal occupational

Within sixty-(60) days of the completion of the on-site work specified in the approved Project Operations and Investigations Plan, Respondents shall submit a Summary and Proposal detailing the results of and recommendations issuing from this work. At a minimum this Summary and Proposal shall include:
-10-
guidance from EPA Standard Operating Safety Guides,
1984.

e. Procedures for the Respondents to provide technical briefings regarding work plans and work performed upon EPA's request to the public or EPA.

f. Specification of off-site destinations and manifesting procedures to be used in the removal of any materials to be transported off-site for treatment, storage, reuse or disposal.

23. EPA will review the aforementioned POIP as submitted by the Respondents and require modifications or changes as necessary. EPA will then approve the aforementioned POIP and so notify the Respondents in writing.

24. Upon receipt of EPA notification of approval of the Project Operations and Investigation Plan, the Respondents shall within three (3) days begin executing the approved POIP in accordance with the approved implementation schedule contained in the POIP.

25. Within sixty-(60) days of the completion of the on-site work specified in the approved Project Operations and Investigations Plan, Respondents shall submit a Summary and Proposal to EPA detailing the results of and recommendations issuing from this work. At a minimum this Summary and Proposal shall include:

23. Within three (3) days of EPA approval of the Summary and Proposal, Respondents shall implement the approved removal or abatement actions set forth in the Summary and Proposal, in compliance with the approved schedule contained therein.
- a. copies of all analytical results and field notes generated during the stabilization and sampling actions;
 - b. QA/QC control documentation on these results;
 - c. a description, with appropriate maps, of any areas of contamination or suspected contamination encountered on-site;
 - d. a proposal for additional soil or ground water testing and analyses, if necessary;
 - e. a proposal for removal or abatement of soil contamination and groundwater contamination in the vicinity of the drums;
 - f. a proposal for removal of the drums; and
 - g. a schedule for implementing additional testing and analysis, and removal or abatement activities.

26. EPA will review the aforementioned Summary and Proposal as submitted by the Respondents and require modifications or changes as necessary. EPA will then approve the aforementioned Summary and Proposal and so notify the Respondents in writing.

27. Within three (3) days of EPA approval of the Summary and Proposal, Respondents shall begin to implement the approved removal or abatement actions set forth in the Summary and Proposal, in compliance with the approved schedule contained therein.

implementing the activities undertaken pursuant to this Order and for the purpose of verifying the data submitted to EPA. Respondents shall permit such persons to inspect and copy all records, documents and other writings in any way pertaining to work undertaken pursuant to this Order.

-12-

28. Designation of Coordinators: Within twenty-four hours of the effective date of this Order, Respondents shall designate a coordinator, who shall be responsible for administration of all actions called for by this Order, and shall submit the coordinator's name to EPA. EPA will during the same time period designate a coordinator for the administration of its responsibilities and for receipt of all written matter required by this Order and will submit the coordinator's name and address to Respondents. In addition, EPA will designate an

On-Scene Coordinator (OSC) to oversee activities undertaken at the Site pursuant to this Order.

29. Respondents shall allow EPA's designated coordinator, OSC and other EPA employees, agents, consultants, contractors and authorized representatives to enter and freely move about the Site at all reasonable times, including, but not limited to, any time that work is being carried out pursuant to this Order, for the purpose of inspecting and observing progress in implementing the activities undertaken pursuant to this Order and for the purpose of verifying the data submitted to EPA. Respondents shall permit such persons to inspect and copy all records, documents and other writings in any way pertaining to work undertaken pursuant to this Order.

by EPA, incorporated into this Order. Failure by Respondents to comply with such EPA approved reports, plans, specifications, schedules, and attachments shall be considered a failure to achieve the requirements of this Order.

30. All activities undertaken by the Respondent in the implementation of this Order shall be performed consistent with: (a) the provisions of the National Contingency Plan, 40 C.F.R. Part 300; and (b) all other applicable local, State and Federal laws, regulations, and rules, including those relating to occupational health and safety.

31. Respondents shall preserve, during the pendency of this Order and for a minimum of six (6) years after its termination, all records and documents in their possession or in the possession of their divisions, employees, agents, accountants, contractors, or attorneys that relate in any way to the Site, despite any document retention policy to the contrary. After this six year period, the Respondents shall notify EPA within thirty (30) calendar days prior to the destruction of any such documents.

32. Any reports, plans, specifications, schedules, and attachments required by this Order are, upon approval by EPA, incorporated into this Order. Failure by Respondents to comply with such EPA approved reports, plans, specifications, schedules, and attachments shall be considered a failure to achieve the requirements of this Order.

not more than \$5,000.00 for each day in which violation occurs or such failure to comply continues. Failure to comply with this Order, or any portion thereof, without sufficient cause, may also subject Respondents to liability for punitive damages in the amount of three times the total of all costs incurred by the government as a result of his failure to take proper action.

RESERVATION OF RIGHTS

33. Notwithstanding any provision of this Order, EPA reserves the right to take any enforcement action pursuant to CERCLA and/or any available legal authority, including the right to seek injunctive relief, monetary penalties, and punitive damages for any violation of law or this Order.

TERMINATION AND SATISFACTION

34. The provisions of this Order shall be deemed satisfied upon Respondents' receipt of written notice from EPA that Respondents have demonstrated, to the satisfaction of EPA, that all of the terms of this Order have been completed.

PENALTIES FOR NON-COMPLIANCE

35. Pursuant to Section 106(b), 42 U.S.C. § 9606(b), and Section 107(c), 42 U.S.C. § 9607(c), of CERCLA, Respondents are advised that willful violation or failure or refusal to comply with this Order, or any portion thereof, may subject them to a civil penalty of not more than \$5,000.00 for each day in which violation occurs or such failure to comply continues. Failure to comply with this Order, or any portion thereof, without sufficient cause, may also subject Respondents to liability for punitive damages in the amount of three times the total of all costs incurred by the government as a result of his failure to take proper action.

order. If Respondents desire such a conference, they should contact Linda L. Ujifusa, Esquire, Office of Regional Counsel, U.S. Environmental Protection Agency, Region I, 22nd Floor, JFK Federal Building, Boston, Massachusetts 02203 at (617) 223-0400 within the time set forth above for requesting a conference.

IMMEDIATE EFFECTIVE DATE - OPPORTUNITY TO CONFER

36. This Order is effective on the date of receipt by Respondents. Respondents may, within three (3) business days after receipt of this Order, request a conference with EPA to discuss the Order; its applicability to

Respondents; the correctness of any factual determinations upon which the Order is based; and the appropriateness of any action that Respondents are ordered hereby to take. However, Respondents are hereby placed on notice

that EPA may take any action, including the actions described in this Order, that may be necessary in the opinion of EPA for the protection of public health and welfare and the environment, and Respondents may be liable under §107(a) of CERCLA for the costs of those government actions. At any conference held pursuant to

Respondents' request, Respondents may appear in person and/or by attorney or other representative for the purpose of presenting any objections, defenses or

contentions that Respondents may have regarding this Order. If Respondents desire such a conference, they should contact Linda L. Ujifusa, Esquire, Office of Regional Counsel, U.S. Environmental Protection Agency, Region I, 22nd Floor, JFK Federal Building, Boston, Massachusetts 02203 at (617) 223-0400 within the time set forth above for requesting a conference.

Issued at Boston, Massachusetts this 25th day of February 1968.

Michael R. DeLand
Michael R. DeLand
Regional Administrator

B-16

REGULATION COMPLIANCE: PRP contacted EPA.

COMMENTS: Access to the site will be difficult to arrange because of the

APPENDIX C

Aberjona River and the B & M Railroad tracks.

DAILY PRP PROGRESS REPORT

SITE NAME: Juniper Development Co.

SITE LOCATION: Woburn, MA

DATE: 02/12/86

SITE CONDITION: Weather: 30 degrees F, moderate wind, sunny skies.

The ground and the drums are snow covered.

WORK SUMMARY: Robert Ankstitus (EPA-OSC), Mark McDuffee (TATM), and Randy Muse (GZA representative) visit the Olympia Ave. site to perform an initial site assessment. The site is documented with photographs and the work plan is discussed.

AIR MONITORING: TAT member attempted to use the Century OVA but, the sub-freezing temperatures prevented the meter from lighting.

REMOVAL EFFECTIVENESS: N/A

SCHEDULE COMPLIANCE: Four (4) working days after the Work Order was issued.

SAFETY GUIDELINES: Site entry is made upwind of the drum pile and a safe distance is maintained to take photographs.

REGULATION COMPLIANCE: PRP contacted EPA.

COMMENTS: Access to the site will be difficult to arrange because of the Aberjona River and the B & M Railroad tracks.

REGULATION COMPLIANCE: N/A

COMMENTS: Clean Harbors contacted B&M railroad to inquire about access across the railroad tracks. B&M requires 2 linemen, 3 signalmen and a multi-million dollar insurance policy.

DAILY PRP PROGRESS REPORT

SITE NAME: Juniper Development Company

SITE LOCATION: Olympia Ave., Woburn, MA DATE: 2/13/86

SITE CONDITION: Unchanged since 2/13/86

Louis Massery - PRP representative - (617) 542-3700

Fran Matuszewski - Clean Harbors - (617) 269-5830

WORK SUMMARY: TAT members Timothy Jones and Mark McDuffee visit the site and meet with Clean Harbors personnel. Site access is discussed. The attempt by Clean Harbors to obtain a temporary transportation I.D. number was not approved.

AIR MONITORING: N/A

REMOVAL EFFECTIVENESS: N/A

SCHEDULE COMPLIANCE: PRP hired Clean Harbors within the allotted 24 hours.

SAFETY GUIDELINES: N/A

REGULATION COMPLIANCE: N/A

COMMENTS: Clean Harbors contacted B&M railroad to inquire about access across the railroad tracks. B&M requires 2 linemen, 3 signalmen and a multi-million dollar insurance policy.

REGULATION COMPLIANCE: N/A

COMMENTS: Clean Harbors will contact TAT when site access is approved.

DAILY PRP PROGRESS REPORT

SITE NAME: Juniper Development Company

SITE LOCATION: Olympia Ave., Woburn, MA DATE: 02/14/86

SITE CONDITION: Unchanged - no site work

WORK SUMMARY: Clean Harbors is trying to get the insurance required by

B&M Railroad.

AIR MONITORING: N/A

REMOVAL EFFECTIVENESS: N/A

SCHEDULE COMPLIANCE: Stabilization and securing of drums will be delayed
because of lack of site access.

SAFETY GUIDELINES: N/A

REGULATION COMPLIANCE: N/A

COMMENTS: Clean Harbors will contact TAT when site access is approved.

SITE NAME: Juniper Development Company C-3

SITE LOCATION: Olympia Ave., Woburn, MA DATE: 02/14/86

SITE CONDITION: Unchanged - no site work

Louis Mazzoni, Project Manager, EPA, Boston, MA

REGULATION COMPLIANCE: N/A

COMMENTS: Clean Harbors has given TAT a verbal outline of the work plan and they will send a letter describing the work plan.

DAILY PRP PROGRESS REPORT

SITE NAME: Juniper Development Company

SITE LOCATION: Olympia Ave. Woburn, MA DATE: 02/21/86

SITE CONDITION: Unchanged - no site work

WORK SUMMARY: Louis Massery said that the insurance required by B&M Railroad is too expensive and Juniper Development Co. will build a temporary bridge across the Aberjona River to obtain access.

Work will begin on Monday February 24, 1986.

AIR MONITORING: N/A

REMOVAL EFFECTIVENESS: N/A

SCHEDULE COMPLIANCE: Removal work will begin 18 days after the Administrative Order was issued.

SAFETY GUIDELINES: N/A

REGULATION COMPLIANCE: N/A

COMMENTS: Clean Harbors has given TAT a verbal outline of the work plan and they will send a letter describing the work plan.

REGULATION COMPLIANCE:

Clean Harbors, Inc. will begin cleanup work on Tuesday February 25, 1986.

DAILY PRP PROGRESS REPORT

SITE NAME: Juniper Development Company

SITE LOCATION: Olympia Ave., Woburn, MA DATE: 02 / 24 / 86

SITE CONDITION: Weather: 35°F, slight breeze, sunny skies, work started at 07:30 hours today.

WORK SUMMARY: Temporary bridge is completed and tested. Access road from the bridge to the drum pile is constructed with a second small culvert bridge.

AIR MONITORING: N/A

REMOVAL EFFECTIVENESS: Access to the site is now possible.

SCHEDULE COMPLIANCE: Work starts 18 days after the Administrative Order was issued.

SAFETY GUIDELINES: Bob Ankstitus requests lab analysis results QA/QC Plan and a contingency plan in case of an accident.

REGULATION COMPLIANCE: N/A

COMMENTS: Clean Harbors, Inc. will begin cleanup work on Tuesday February 25,

1986.

Air monitoring should be improved.

Contaminated soil will be removed and sealed in drums.

DAILY PRP PROGRESS REPORT

SITE NAME: Juniper Development Company

SITE LOCATION: Olympia Ave., Woburn MA DATE: 02/25/86

SITE CONDITION: Weather: 30°F, slight breeze partly cloudy. Clean Harbors mobilizes Bobcat, backhoe, response van, overpack drums.

WORK SUMMARY: Trees and brush cleared, overpack operation begins, 19 overpacks are staged in parking lot behind the United Leasing building. 3 drums are filled with soil and staged. drum site area is covered with plastic cover night.

AIR MONITORING: Clean Harbors personnel uses an HNU in Level D to check around the drums. 2-4 ppm detected during the day.

REMOVAL EFFECTIVENESS: All drums and contents are placed in overpack drums.

SCHEDULE COMPLIANCE: N/A

operation.

SAFETY GUIDELINES: Level C protection for workers during overpack operation. Workers without proper skin protection.

REGULATION COMPLIANCE: Personal protection for workers should be improved.

COMMENTS: Bobcat broke down during the day.

Air monitoring should be improved.

Contaminated soil will be removed and sealed in drums tomorrow.

SITE NAME: Juniper Development Company C-6

SITE LOCATION: Olympia Ave., Woburn MA

SITE CONDITION: Weather: 30°F, slight breeze partly cloudy. Clean Harbors mobilizes Bobcat, backhoe, response van, overpack drums.

COMMENTS: All drums are staged in the parking lot waiting to be sampled.

LANDFILLS: will be sampled and a composite soil sample is required.

DAILY PRP PROGRESS REPORT

SITE NAME: Juniper-Development Company

SITE LOCATION: Olympia Ave., Woburn, MA DATE: 02/26/86

SITE CONDITION: Weather 15°F, slight breeze sunny skies. Drums have been overpacked and staged in the parking lot. Contaminated soil is covered with plastic sheet.

WORK SUMMARY: Contaminated soil is excavated and loaded into 19 overpack drums. The drums along with 3 empty original drums are staged in the parking lot.

AIR MONITORING: No air-monitoring was performed during the soil excavation.

REMOVAL EFFECTIVENESS: Contaminated soil and drum contents were removed and overpacked.

SCHEDULE COMPLIANCE: It has taken 3 weeks, not 3 days, to secure the drums and prevent further contamination.

SAFETY GUIDELINES: Personnel entering Hot Zone with no respiratory or personal protection and no decontamination.

REGULATION COMPLIANCE: Drums have been stabilized and secured, transportation ID numbers have not been obtained.

COMMENTS: All drums are staged in the parking lot waiting to be sampled. Each overpack must be sampled and a composite soil sample is required.

SITE NAME:

C-7

REGULATION COMPLIANCE: Samples were not cross contaminated and the proper Chain-of-Custody documentation was completed.

COMMENTS: Samples will be analyzed at the Clean Harbors facility in Braintree in order to locate an approved disposal facility.

DAILY PRP PROGRESS REPORT

SITE NAME: Juniper Development Company

SITE LOCATION: Olympia Ave., Woburn, MA DATE: 03 / 05 / 86

SITE CONDITION: No site work since 02/26/86.

Weather: 38°F, moderate winds, sunny skies.

Overpack and soil drums are staged in parking lot.

WORK SUMMARY: TAT monitors the sampling of each overpack and the taking of a composite soil sample. Sampling was performed in Level C protection.

AIR MONITORING: No air monitoring was conducted during sampling.

REMOVAL EFFECTIVENESS: A single drum remains along side the access road (film roll 002, photo 1 & 2).

SCHEDULE COMPLIANCE: N/A

SAFETY GUIDELINES: Proper Level C protection was maintained during sampling.

Injury could have resulted from glass rods.

REGULATION COMPLIANCE: Samples were not cross contaminated and the proper Chain-of-Custody documentation was completed.

COMMENTS: Samples will be analyzed at the Clean Harbors facility in Braintree in order to locate an approved disposal facility.

Juniper Development, Inc., acting as both the State and private spill clean up contractors for the State of Massachusetts, has made a verbal proposal to clean up a dump site at or about #60 Dogwood St., Woburn, MA.

APPENDIX D



AN ENVIRONMENTAL SERVICES COMPANY

BOSTON FIELD SERVICE OFFICE
900 EAST FIRST STREET
SOUTH BOSTON, MA 02127

February 24, 1986

ATTENTION: STEVE A.
(617) 269-5830
1-800-OIL TANK

Juniper Development
39 Holton St.
Winchester, MA 01890

Dear Sirs,

Clean Harbor's, Inc., acting as both the State and private spill clean up contractors for the State of Massachusetts, has made a verbal proposal to clean up a dump site at or about #60 Dogwood St., Woburn, MA.

A detailed description of our plan involves building a small bridge over a swampland river with the use of calvert pipe and planks. A bobcat will be operated over this bridge to reach the site where 12 drums of sludge, pesticide material exists. The above mentioned drums will be separated from the solidified resin material it is encased in by a jackhammer attachment on the bobcat. With care not to further damage these drums we will separate, overpack and seal the material, and then haul each drum out with the front bucket of the bobcat.

When all of the drums and immediate contaminate have been removed systematic sampling will be taken and sent for analysis at our Natick facility to determine if any further removal is necessary. Any further removal will be handled by bobcat and hand tools and the material drummed will be transported to a nearby parking lot owned by Juniper Development. The removal material will be stockpiled in a roll-off or loaded onto a waiting R/truck to be disposed of at our Braintree disposal facility. At the completion of this job all areas will be returned to their original and natural conditions and all State and Federal regulations will be strictly adheared to during the project.

During this project, all personnel will enter site and work at level A protection unless site conditions warrent a change.

D-1

BOSTON FIELD SERVICE OFFICE
900 EAST FIRST STREET
SOUTH BOSTON, MA 02127

24 HOUR SERVICE
(617) 269-5830
1-800-OIL TANK

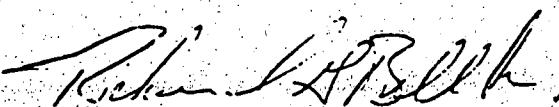
February 24, 1986

Juniper Development

Page

If there are any further questions, please do not hesitate to call me at 269-5830.

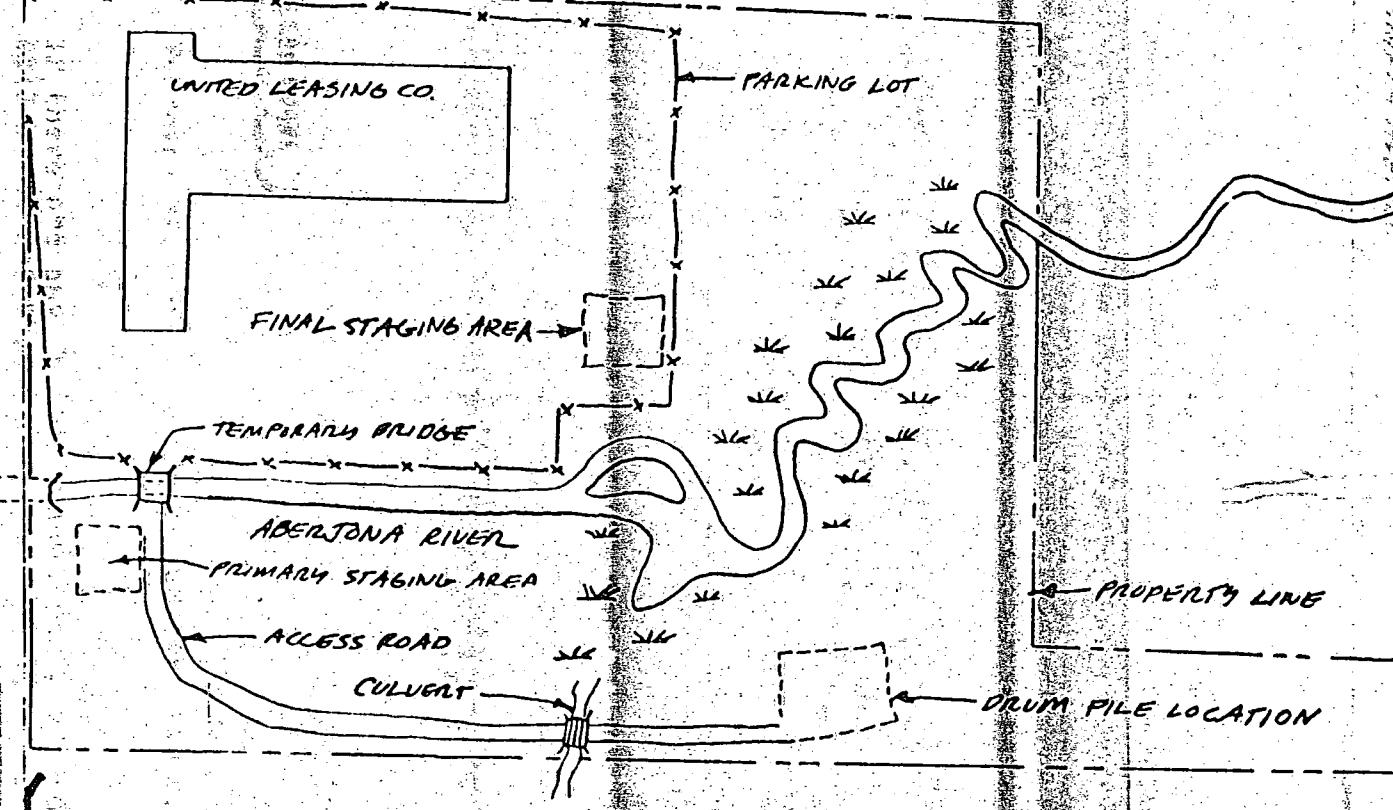
Sincerely,



Richard G. Bell Jr.
Operations Coordinator

RGB/mam

APPENDIX E



JUNIPER DEVELOPMENT CO. SITE
60 OLYMPIA AVE. WOBURN, MA
FEBRUARY - MAY 1986

NOT TO SCALE
SITE SKETCH

WESTEN·SPER

PHOTOGRAPHS

Original photographs are included in the EPA's copy of the final report.

APPENDIX F

LOC SHEET
PHOTOGRAPHY

Film Roll: 001

Frame Number: 01 Site Name: Juniper Development Co. Site
Site Location: 60 Olympia Ave. Woburn, MA.Applying Print
Information:

A. Scene: Drums prior to removal
taken from railroad
tracks

B. Photo By: Mark McDuffee

C. Time/Date: 14:20 / 02-21-86

D. Sky Condition: Clear

E. Camera: Instamatic

F. Setting: Normal

G. Film Type: 110 Color Print

H. Witnesses: --

Frame Number: 02 Site Name: Juniper Development Co. Site
Site Location: 60 Olympia Ave. Woburn, MA.Applying Print
Information:

A. Scene: Drums prior to removal
from another angle

B. Photo By: Mark McDuffee

C. Time/Date: 14:20 / 02-21-86

D. Sky Condition: Clear

E. Camera: Instamatic

F. Setting: Normal

G. Film Type: 110 Color Print

H. Witnesses: --



LOC. SHEET
PHOTOGRAPHY

Film Roll: 001

Frame Number: 03 Site Name: Juniper Development Co. Site
Site Location: 60 Olympia Ave. Woburn, MA.

Applifying
Information:

A. Scene: Entrance to temporary
site access road.



B. Photo By: Mark McDuffee

C. Time/Date: 10:55 / 02-24-86

D. Sky Condition: Clear

E. Camera: Instamatic

F. Setting: Normal

G. Film Type: 110 Color Print

H. Witnesses: --

Frame Number: 04 Site Name: Juniper Development Co. Site
Site Location: 60 Olympia Ave. Woburn, MA.

Applifying
Information:

A. Scene: Temporary bridge built:
by Juniper Development
Construction Co.

B. Photo By: Mark McDuffee

C. Time/Date: 10:55 / 02-24-86

D. Sky Condition: Clear

E. Camera: Instamatic

F. Setting: Normal

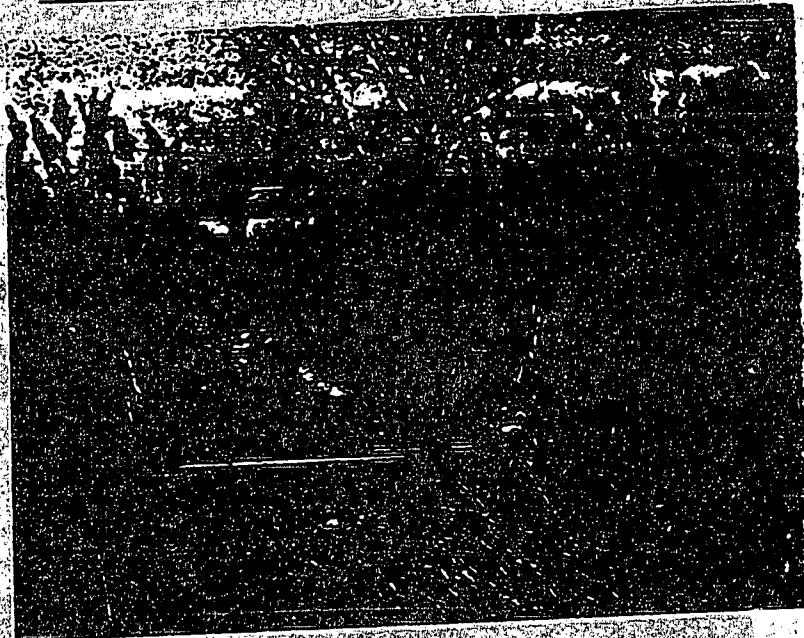
G. Film Type: 110 Color Print

H. Witnesses: --



LOG SHEET
PHOTOGRAPHY

Frame Number: 05 Site Name: Juniper Development Co. Site Applying Information:
Site Location: 60 Olympia Ave. Woburn, MA.



Frame Number: 06 Site Name: Juniper Development Co. Site Applying Information:
Site Location: 60 Olympia Ave. Woburn, MA.



- A. Scene: Railroad ties over culvert on access road.
B. Photo By: Mark McDuffee
C. Time/Date: 11:00 / 02-24-86
D. Sky Condition: Clear
E. Camera: Instamatic
F. Setting: Normal
G. Film Type: 110 Color Print
H. Witnesses: --

- A. Scene: Access road though high swamp brush.
B. Photo By: Mark McDuffee
C. Time/Date: 11:00 / 02-24-86
D. Sky Condition: Clear
E. Camera: Instamatic
F. Setting: Normal
G. Film Type: 110 Color Print
H. Witnesses: --

LOG SHEET
PHOTOGRAPHY

Film Roll: 001

Frame

Site Name: Juniper Development Co. Site
Number: 07 Site Location: 60 Olympia Ave. Woburn, MA.

Print
Type: Applying
Information:



A. Scene: Drum separation and
overpacking operation.

LEVEL C

B. Photo By: Mark McDuffee

C. Time/Date: 10:05 / 02-25-86

D. Sky Condition: Clear

E. Camera: Instamatic

F. Setting: Normal

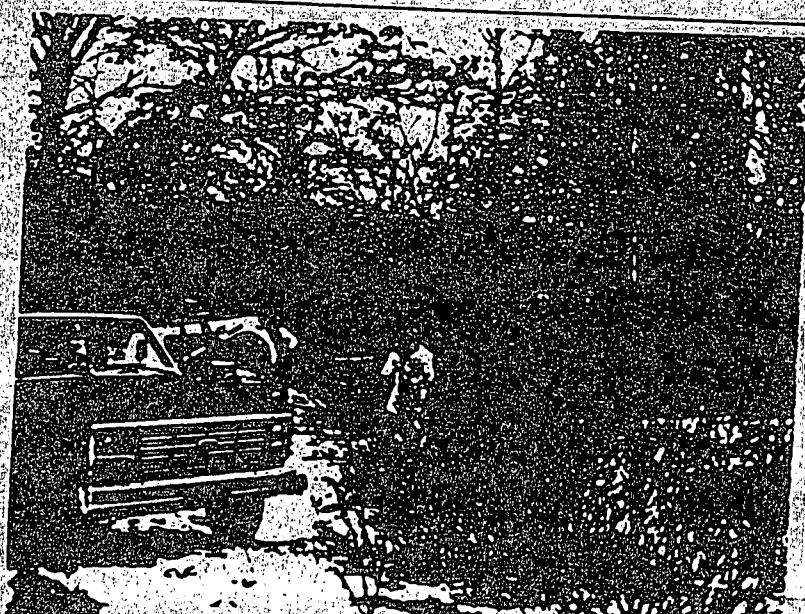
G. Film Type: 110 Color Print

H. Witnesses:

Frame

Site Name: Juniper Development Co. Site
Number: 08 Site Location: 60 Olympia Ave. Woburn, MA.

Print
Type: Applying
Information:



A. Scene: Drum separation and
overpacking operation.

LEVEL C

B. Photo By: Mark McDuffee

C. Time/Date: 10:05 / 02-25-86

D. Sky Condition: Clear

E. Camera: Instamatic

F. Setting: Normal

G. Film Type: 110 Color Print

H. Witnesses:

LOG SHEET
PHOTOGRAPHY

Frame Number: 09 Site Name: Juniper Development Co. Site
Site Location: 60 Olympia Ave. Woburn, MA.

Film Type: 110 Color Print
Applying Information:



Frame Number: 10 Site Name: Juniper Development Co. Site
Site Location: 60 Olympia Ave. Woburn, MA.

Film Type: 110 Color Print
Applying Information:



A. Scene: Overpacking operation
LEVEL C

B. Photo By: Mark McDuffee

C. Time/Date: 10:20 / 02-25-86

D. Sky Condition: Clear

E. Camera: Instamatic

F. Setting: Normal

G. Film Type: 110 Color Print

H. Witnesses: --

A. Scene: Temporary staging area
and transport of over-
pack across bridge.

B. Photo By: Mark McDuffee

C. Time/Date: 10:50 / 02-25-86

D. Sky Condition: Clear

E. Camera: Instamatic

F. Setting: Normal

G. Film Type: 110 Color Print

H. Witnesses: --

LOG SHEET
PHOTOGRAPHY

Film Roll: 001

Frame Number: 11 Site Name: Juniper Development Co. Site Location: 60 Olympia Ave. Woburn, MA.

Applifying Information:

A. Scene: Temporary staging area.



Frame Number: 12 Site Name: Juniper Development Co. Site Location: 60 Olympia Ave. Woburn, MA.

Applifying Information:

A. Scene: Transporting of overpac over the bridge.



B. Photo By: Mark McDuffee

C. Time/Date: 10:50 / 02-25-85

D. Sky Condition: Clear

E. Camera: Instamatic

F. Setting: Normal

G. Film Type: 110 Color Print

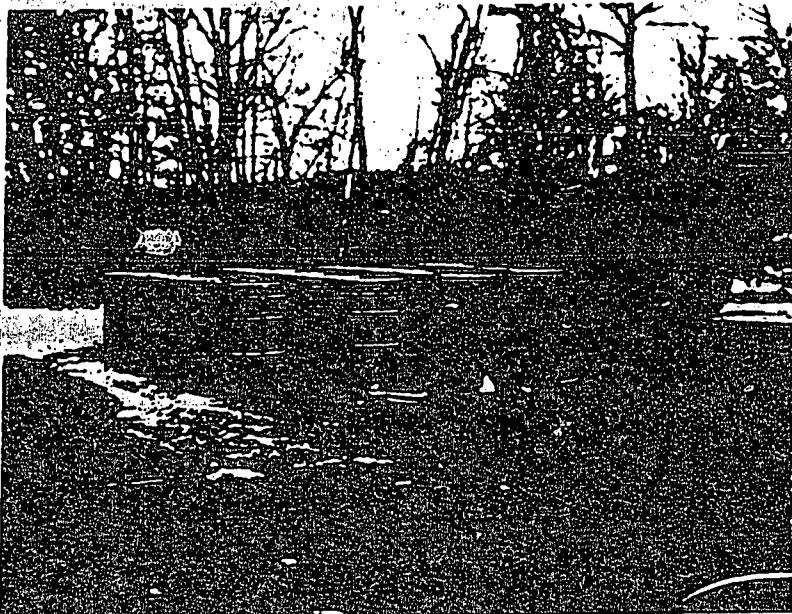
H. Witnesses:

LOG SHEET
PHOTOGRAPHY

Film Roll: 001

Frame Number: 13 Site Name: Juniper Development Co. Site
Site Location: 60 Olympia Ave. Woburn, MA.

Applifying Information:



A. Scene: Overpack storage area

at the rear of the
United Truck Leasing

B. Photo By: Mark McDuffee

C. Time/Date: 13:40 / 02-25-85

D. Sky Condition: Clear

E. Camera: Instamatic

F. Setting: Normal

G. Film Type: 110 Color Print

H. Witnesses: --

Frame Number: 14 Site Name: Juniper Development Co. Site
Site Location: 60 Olympia Ave. Woburn, MA.

Applifying Information:

A. Scene: Contaminated soil
removal operation



B. Photo By: Mark McDuffee

C. Time/Date: 09:10 /02-26-86

D. Sky Condition: Clear

E. Camera: Instamatic

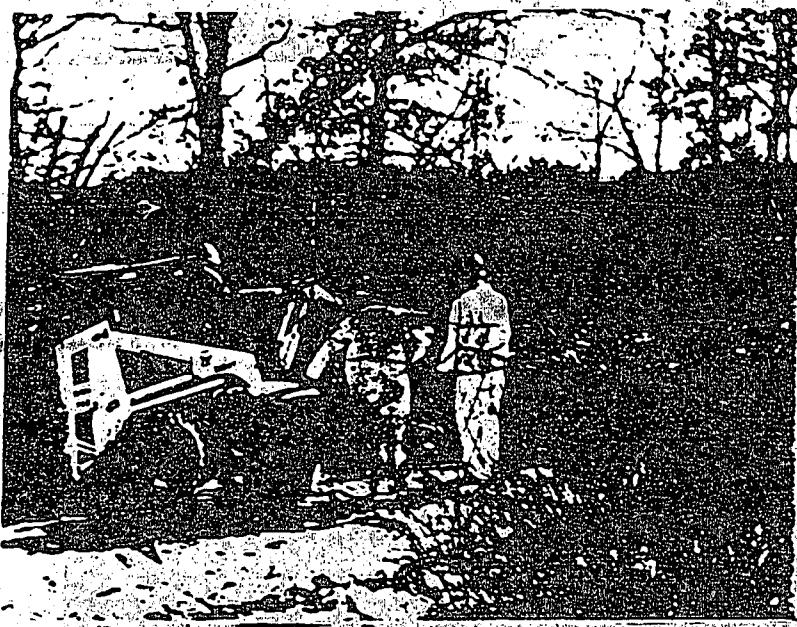
F. Setting: Normal

G. Film Type: 110 Color Print

H. Witnesses: --

LOG SHEET
PHOTOGRAPHY

Film Roll: 001

Frame Site Name: Juniper Development Co. Site
Number: 15 Site Location: 60 Olympia Ave. Woburn, MA.Applying
Information:A. Scene: Contaminated soil
removal operation

B. Photo By: Mark McDuffee

C. Time/Date: 09:30 / 02-26-86

D. Sky Condition: Clear

E. Camera: Instamatic

F. Setting: Normal

G. Film Type: 110 Color Print

H. Witnesses: --

Frame Site Name: Juniper Development Co. Site
Number: 16 Site Location: 60 Olympia Ave. Woburn, MA.Applying
Information:A. Scene: Drum site following
soil removal.

B. Photo By: Mark McDuffee

C. Time/Date: 16:30 / 02-26-86

D. Sky Condition: Clear

E. Camera: Instamatic

F. Setting: Normal

G. Film Type: 110 Color Print

H. Witnesses: --

LOG SHEET
PHOTOGRAPHY

Film Roll: 001

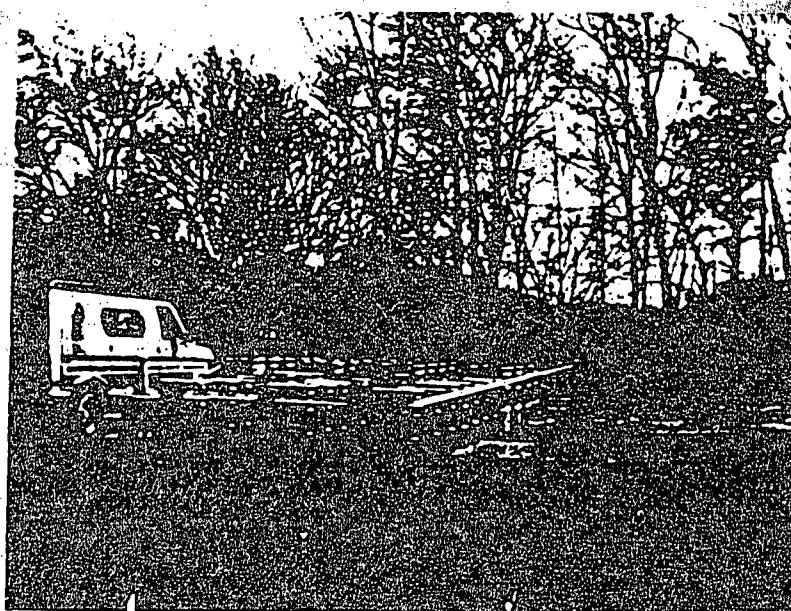
Frame Site Name: Juniper Development Co. Site
Number: 17 Site Location: 60 Olympia Ave. Woburn, MA.

Applifying
Information:



Frame Site Name: Juniper Development Co. Site
Number: 18 Site Location: 60 Olympia Ave. Woburn, MA.

Applifying
Information:



A. Scene: Drum site following

soil removal.

B. Photo By: Mark McDuffee

C. Time/Date: 16:30 / 02-26-86

D. Sky Condition: Clear

E. Camera: Instamatic

F. Setting: Normal

G. Film Type: 110 Color Print

H. Witnesses: --

A. Scene: Final staging area

surrounded by yellow

CAUTION TAPE

B. Photo By: Mark McDuffee

C. Time/Date: 16:40 / 02-26-86

D. Sky Condition: Clear

E. Camera: Instamatic

F. Setting: Normal

G. Film Type: 110 Color Print

H. Witnesses: --

LOG SHEET
PHOTOGRAPHY

Film Roll: 002

Frame Site Name: Juniper Development Co. Site
Number: 01 Site Location: 60 Olympia Ave. Woburn, MA.

Applying
Information:



Frame Site Name: Juniper Development Co. Site
Number: 02 Site Location: 60 Olympia Ave. Woburn, MA.

Applying
Information:



- A. Scene: Single remaining drum
along side the access
road.
- B. Photo By: Timothy Jones
- C. Time/Date: 08:30 / 03-05-86
- D. Sky Condition: Clear
- E. Camera: Instamatic
- F. Setting: Normal
- G. Film Type: 110 Color Print
- H. Witnesses: --

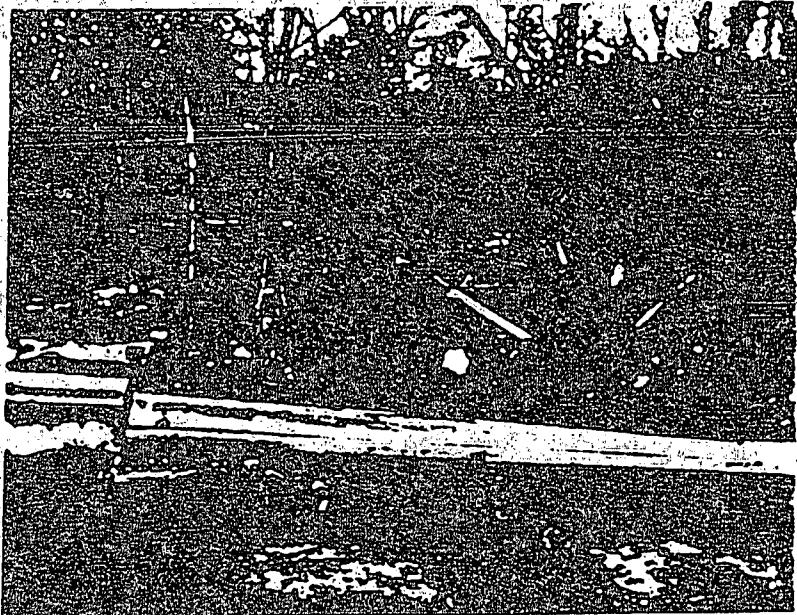
- A. Scene: Close-up of the single
drum's cover.
- B. Photo By: Timothy Jones
- C. Time/Date: 08:30 / 03-05-86
- D. Sky Condition: Clear
- E. Camera: Instamatic
- F. Setting: Normal
- G. Film Type: 110 Color Print
- H. Witnesses: --

LOG SHEET
PHOTOGRAPHY

Film Roll: 002

Frame Site Name: Juniper Development Co. Site
Number: 03 Site Location: 60 Olympia Ave. Woburn, MA.

Applying
Information:



Frame Site Name: Juniper Development Co. Site
Number: 04 Site Location: 60 Olympia Ave. Woburn, MA.

Applying
Information:



- A. Scene: Unsecured guard across entrance to the site access road
- B. Photo By: Timothy Jones
- C. Time/Date: 08:40 / 03-05-86
- D. Sky Condition: Clear
- E. Camera: Instamatic
- F. Setting: Normal
- G. Film Type: 110 Color Print
- H. Witnesses: --

- A. Scene: Staging area prior to sampling operation
- B. Photo By: Timothy Jones
- C. Time/Date: 09:00 / 03-05-86
- D. Sky Condition: Clear
- E. Camera: Instamatic
- F. Setting: Normal
- G. Film Type: 110 Color Print
- H. Witnesses: --

LOG SHEET
PHOTOGRAPHY

Frame Site Name: Juniper Development Co. Site
Number: 05 Site Location: 60 Olympia Ave. Woburn, MA.

Applifying
Information:

A. Scene: Loosening of the drum

lids rings

B. Photo By: Timothy Jones

C. Time/Date: 09:45 / 03-05-86

D. Sky Condition: Clear

E. Camera: Instamatic

F. Setting: Normal

G. Film Type: 110 Color Print

H. Witnesses: --



Frame Site Name: Juniper Development Co. Site
Number: 06 Site Location: 60 Olympia Ave. Woburn, MA.

Applifying
Information:

A. Scene: Sampling jars placed
on top of overpacks.

B. Photo By: Timothy Jones

C. Time/Date: 10:30 / 03-05-86

D. Sky Condition: Clear

E. Camera: Instamatic

F. Setting: Normal

G. Film Type: 110 Color Print

H. Witnesses: --



LOG SHEET
PHOTOGRAPHY

Film Roll: 002

Frame Number: 07 Site Name: Juniper Development Co. Site
Site Location: 60 Olympia Ave. Woburn, MA.

Applifying Information:



A. Scene: Sampling of the contents of overpacks.

B. Photo By: Timothy Jones

C. Time/Date: 10:40 / 03-05-86

D. Sky Condition: Clear

E. Camera: Instamatic

F. Setting: Normal

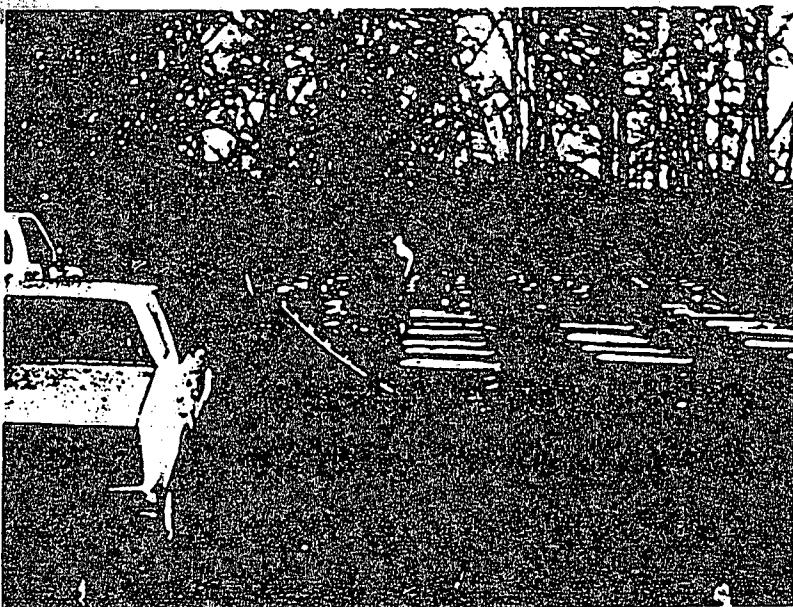
G. Film Type: 110 Color Print

H. Witnesses: --

Frame Number: 08 Site Name: Juniper Development Co. Site
Site Location: 60 Olympia Ave. Woburn, MA.

Applifying Information:

A. Scene: Dual glass rods used as a plunger on sludge.



B. Photo By: Timothy Jones

C. Time/Date: 14:40 / 03-05-86

D. Sky Condition: Clear

E. Camera: Instamatic

F. Setting: Normal

G. Film Type: 110 Color Print

H. Witnesses: --